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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/873,664	06/04/2001	Lukas Howald	01-352	4255

7590

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EXAMINER

MOUTTET, BLAISE L

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 08/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/873,664

Applicant(s)

HOWALD ET AL.

Examiner

Blaise L. Mouttet

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 15 is/are allowed.
- 6) ☒ Claim(s) 11-14 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant has claimed the use of a tip (claim 13) manufactured by a process as defined by claim 1 and the use of a probe (claim 14) embodied by an article as defined by claim 11. It is noted that the applicant has switched statutory classes from a product (product by process as from claim 1 and product as from claim 11) to a method of the products use. However the single step recited by claims 13 and 14 fail to include the probe/tip in the recitation. Therefore it appears that claims 13 and 14 may not be limited to any or all previously recited claimed structure for the tip or probe. If applicant is attempting to rely on both the structure of the tip/probe and the method of its use as claimed separately in a common claim to achieve patentability than this is improper as being indefinite under 35 USC 112 2nd paragraph and non-statutory under 35 USC 101. See for example MPEP 2173.05(p) and in particular *Ex Parte Lyell*, 17 USPQ2d 1548 (Bd. Pat. App. & Inter. 1990). While materials manipulated in a process are given patentable weight (see MPEP 2116 for a further discussion and relevant case law on this point) it is unclear to the examiner to what extent the process step is intended to be limited to the particular tip/probe structure of claim 1 / claim 11 since no tip/probe

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structure is claimed in relation to the step. This situation is compounded for claim 13 since claim 13 is recited so as to depend from product produced by a process of claim 1. Products defined by processes are not particularly limited to the manipulations of the recited steps but only the structure implied by such steps (see MPEP 2113 for a further discussion and relevant case law on this point). For purpose of examination under 35 USC 102 and 35 USC 103 the examiner will consider only the claimed step of claims 13 and 14 since the examiner is unclear as to what, if any, other limitations are intended for the claim by the applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Andreoli et al. WO 99/56176.

Andreoli et al. discloses, regarding claim 11, a probe for use in scanning probe microscopy, comprising a tip (17) of a hardened photosensitive resist (SU-8) (figure 4, page 8, lines 9-11) mounted laterally on a carrier (16) forming a cantilever of a scanning probe microscope (figure 4, page 8, lines 11-13, page 6, lines 6-16).

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Regarding claim 12, the tip consists of photosensitive resist (SU-8) and is fabricated by a process for making photoresist etch masks in the production of semiconductors (page 8, lines 9-13).

3. Claims 11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Van der Weide US 5,936,237.

Van der Weide discloses, regarding claim 11, a probe for use in scanning probe microscopy, comprising a tip (292) of a hardened photosensitive resist (column 14, lines 28-42, column 15, lines 5-8) mounted laterally on a carrier (280, 290) forming a cantilever of a scanning probe microscope (column 14, lines 24-27, Title).

Regarding claim 16, the carrier is made of semiconductor material (column 13, lines 23-27).

4. Claims 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Tench et al. US 5,461,907.

Tench et al. discloses a use of a probe/tip (13) in a scanning probe microscope comprising the step of examining a so-called soft specimen (human chromosomes) in a vacuum (abstract, column 6, lines 52-64).

Additional Prior Art

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Muramatsu et al. US 6,358,426 discloses a dual sided manufacturing method for a probe tip with a quartz cantilever and tip.

Mitchell et al. US 6,504,151 discloses a quartz cantilever with a tip made of fused silica, silicon, SiN, sapphire, SiC or diamond to produces a probe tip more resistant to wear than quartz.

Allowable Subject Matter

6. Claims 1-10 and 15 are allowable for the reasons indicated in the prior office action.

Response to Arguments

7. The examiner agrees that the amendments to the claims have overcome the prior rejections. However the amendments have necessitated new rejections for claims 11-14 and 16 as detailed above.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Blaise Mouttet whose telephone number is (703) 305-3007. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier, Art Unit 2853, can be reached at (703) 308-4896. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3432.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Blaise Mouttet August 18, 2003

BM 8/18/2003



Stephen D. Meier
Primary Examiner